

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	361677	(spin adj bulb or spin adj bubble or ((read\$3 or reproduc\$3) near2 (element\$1 or device\$1)) or mr or DOMR or mre or magneto adj2 (resistiv\$3 or resistance\$1) or magnetoresist\$5 or amr or magnetic\$4 adj2 (resistiv\$3 or resistance\$1) or SVMR or TuMR\$1 or CMR\$1 or GMR\$1 or spin adj2 valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or tmr\$1 or mram\$1 or magnetic adj2 (memories or memory) or magnetic adj random adj access adj memor\$3 or DSV or TJM or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1)) or g11b005/39.ipc. or g11b005/33.ipc. or g11b005/127.ipc. or "g11b005/39" or "g11b005/33 " or "g11b005/127" or "g11b05/39" or "g11b05/33 " or "g11b05/127" or "g11b5/39" or "g11b5/33 " or "g11b5/127" or "g11b 5/39" or "g11b 5/33 " or "g11b 5/127" or g11c\$.ipc.	FPRS; EPO; JPO; DERWENT	ADJ	OFF	2007/10/26 20:56

## EAST Search History

L2	196768	(spin adj bulb or spin adj bubble or ((read\$3 or reproduc\$3) near2 (element or device\$1)) or mr or DOMR or mre or magneto adj2 (resistiv\$3 or resistance\$1) or magnetoresist\$5 or amr or magnetic\$4 adj2 (resistiv\$3 or resistance\$1) or SFSV or SVMR or TuMR\$1 or CMR\$1 or GMR\$1 or spin adj2 valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or tmr\$1 or mram\$1 or magnetic adj2 memor\$3 or magnetic adj random adj access adj memor\$3 or DSV or TJM or MTJ or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1)).ti,ab,clm. or "360/113" or 360/313-327.33.ccls. or 365/148.ccls. or 338/32\$2.ccls. or 324/207.21.ccls. or 324/252.ccls. or 365/171.ccls. or 365/173.ccls. or 428/811-811.5.ccls. or 148/108.ccls. or 257/295.ccls. or 257/296.ccls. or 257/414.ccls. or 257/421.ccls. or 428/611.ccls. or 438/3.ccls. or g11b005/39.ipc. or g11b005/33.ipc. or g11b005/127.ipc. or "g11b005/39" or "g11b005/33 " or "g11b005/127" or "g11b05/39" or "g11b05/33 " or "g11b05/127" or "g11b5/39" or "g11b5/33 " or "g11b5/127" or "g11b 5/39" or "g11b 5/33 " or "g11b 5/127"	FPRS; EPO; JPO; DERWENT	ADJ	OFF	2007/10/26 21:27
L3	363184	1 or 2	FPRS; EPO; JPO; DERWENT	ADJ	OFF	2007/10/26 20:57
L4	30933	amorphous\$4 and crystal\$6	FPRS; EPO; JPO; DERWENT	ADJ	OFF	2007/10/26 20:57
L5	603	3 and 4	FPRS; EPO; JPO; DERWENT	ADJ	OFF	2007/10/26 20:57
L6	5788097	free or recording or cell or memory or pin\$5 or fix\$5	FPRS; EPO; JPO; DERWENT	ADJ	OFF	2007/10/26 20:58
L7	399	5 and 6	FPRS; EPO; JPO; DERWENT	ADJ	OFF	2007/10/26 20:58

## EAST Search History

L8	78709	(spin adj bulb or spin adj bubble or ((read\$3 or reproduc\$3) near2 (element or device\$1)) or mr or DOMR or mre or magneto adj2 (resistiv\$3 or resistance\$1) or magnetoresist\$5 or amr or magnetic\$4 adj2 (resistiv\$3 or resistance\$1) or SFSV or SVMR or TuMR\$1 or CMR\$1 or GMR\$1 or spin adj2 valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or tmr\$1 or mram\$1 or magnetic adj2 memor\$3 or magnetic adj random adj access adj memor\$3 or DSV or TJM or MTJ or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1)).ti,ab,clm. or "360/113" or 360/313-327.33.ccls. or 365/148.ccls. or 338/32\$2.ccls. or 324/207.21.ccls. or 324/252.ccls. or 365/171.ccls. or 365/173.ccls. or 428/811-811.5.ccls. or 148/108.ccls. or 257/295.ccls. or 257/296.ccls. or 257/414.ccls. or 257/421.ccls. or 428/611.ccls. or 438/3.ccls. or g11b005/39.ipc. or g11b005/33.ipc. or g11b005/127.ipc. or "g11b005/39" or "g11b005/33 " or "g11b005/127" or "g11b05/39" or "g11b05/33 " or "g11b05/127" or "g11b5/39" or "g11b5/33 " or "g11b5/127" or "g11b 5/39" or "g11b 5/33 " or "g11b 5/127"	US-PGPUB; USPAT	ADJ	OFF	2007/10/26 21:27
----	-------	---	--------------------	-----	-----	------------------

## EAST Search History

L9	78709	(spin adj bulb or spin adj bubble or ((read\$3 or reproduc\$3) near2 (element or device\$1)) or mr or DOMR or mre or magneto adj2 (resistiv\$3 or resistance\$1) or magnetoresist\$5 or amr or magnetic\$4 adj2 (resistiv\$3 or resistance\$1) or SFSV or SVMR or TuMR\$1 or CMR\$1 or GMR\$1 or spin adj2 valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or tmr\$1 or mram\$1 or magnetic adj2 memor\$3 or magnetic adj random adj access adj memor\$3 or DSV or TJM or MTJ or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1)).ti,ab,clm. or "360/113" or 360/313-327.33.ccls. or 365/148.ccls. or 338/32\$2.ccls. or 324/207.21.ccls. or 324/252.ccls. or 365/171.ccls. or 365/173.ccls. or 428/811-811.5.ccls. or 148/108.ccls. or 257/295.ccls. or 257/296.ccls. or 257/414.ccls. or 257/421.ccls. or 428/611.ccls. or 438/3.ccls. or g11b005/39.ipc. or g11b005/33.ipc. or g11b005/127.ipc. or "g11b005/39" or "g11b005/33 " or "g11b005/127" or "g11b05/39" or "g11b05/33 " or "g11b05/127" or "g11b5/39" or "g11b5/33 " or "g11b5/127" or "g11b 5/39" or "g11b 5/33 " or "g11b 5/127"	US-PGPUB; USPAT	ADJ	OFF	2007/10/26 21:28
----	-------	---	--------------------	-----	-----	------------------

## EAST Search History

L10	78516	(spin adj bulb or spin adj bubble or ((read\$3 or reproduc\$3) near2 (element or device\$1)) or mr or DOMR or mre or magneto adj2 (resistiv\$3 or resistance\$1) or magnetoresist\$5 or amr or magnetic\$4 adj2 (resistiv\$3 or resistance\$1) or SFSV or SVMR or TuMR\$1 or CMR\$1 or GMR\$1 or spin adj2 valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or tmr\$1 or mram\$1 or magnetic adj2 memor\$3 or magnetic adj random adj access adj memor\$3 or DSV or TJM or MTJ or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1)).ti,ab,clm. or "360/113" or 360/313-327.33.ccls. or 365/158.ccls. or 338/32\$2.ccls. or 324/207.21.ccls. or 324/252.ccls. or 365/171.ccls. or 365/173.ccls. or 428/811-811.5.ccls. or 148/108.ccls. or 257/295.ccls. or 257/296.ccls. or 257/414.ccls. or 257/421.ccls. or 428/611.ccls. or 438/3.ccls. or g11b005/39.ipc. or g11b005/33.ipc. or g11b005/127.ipc. or "g11b005/39" or "g11b005/33 " or "g11b005/127" or "g11b05/39" or "g11b05/33 " or "g11b05/127" or "g11b5/39" or "g11b5/33 " or "g11b5/127" or "g11b 5/39" or "g11b 5/33 " or "g11b 5/127"	US-PGPUB; USPAT	ADJ	OFF	2007/10/26 21:29
-----	-------	---	--------------------	-----	-----	------------------

## EAST Search History

L11	374861	(spin adj bulb or spin adj bubble or ((read\$3 or reproduc\$3) near2 (element\$1 or device\$1)) or mr or DOMR or mre or magneto adj2 (resistiv\$3 or resistance\$1) or magnetoresist\$5 or amr or magnetic\$4 adj2 (resistiv\$3 or resistance\$1) or SVMR or TuMR\$1 or CMR\$1 or GMR\$1 or spin adj2 valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or tmr\$1 or mram\$1 or magnetic adj2 (memories or memory) or magnetic adj random adj access adj memor\$3 or DSV or TJM or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1)) or g11b005/39.ipc. or g11b005/33.ipc. or g11b005/127.ipc. or "g11b005/39" or "g11b005/33 " or "g11b005/127" or "g11b05/39" or "g11b05/33 " or "g11b05/127" or "g11b5/39" or "g11b5/33 " or "g11b5/127" or "g11b 5/39" or "g11b 5/33 " or "g11b 5/127" or g11c\$.ipc.	US-PGPUB; USPAT	ADJ	OFF	2007/10/26 21:29
L12	385220	10 or 11	US-PGPUB; USPAT	ADJ	OFF	2007/10/26 21:29
L13	620	((pin\$4 or fix\$6 or reference) with crystal\$6) and (free with (amorphous\$4 or noncrystal\$6))	US-PGPUB; USPAT	ADJ	ON	2007/10/26 21:46
L14	145	12 and 13	US-PGPUB; USPAT	ADJ	OFF	2007/10/26 21:31
L15	42	@AD<="20020806" AND 14	US-PGPUB; USPAT	ADJ	OFF	2007/10/26 21:50
L16	18	((pin\$4 or fix\$6 or reference) with crystal\$6) and (free with (amorphous\$4 or noncrystal\$6 or CoFeB or Co-Fe-B or Co--Fe--B or Co near3 Fe near3 B or boron or FeCoB or Fe-Co-B))	FPRS; EPO; JPO; DERWENT	ADJ	ON	2007/10/26 21:49
L17	0	((pin\$4 or fix\$6 or reference) with crystal\$6) and (free with (amorphous\$4 or noncrystal\$6 or CoFeB or Co-Fe-B or Co--Fe--B or Co near3 Fe near3 B or boron or FeCoB or Fe-Co-B))	IBM_TDB	ADJ	ON	2007/10/26 21:49

## EAST Search History

L18	828	((pin\$4 or fix\$6 or reference) with crystal\$6) and (free with (amorphous\$4 or noncrystal\$6 or CoFeB or Co-Fe-B or Co--Fe--B or Co near3 Fe near3 B or boron or FeCoB or Fe-Co-B))	US-PGPUB; USPAT	ADJ	ON	2007/10/26 21:50
L19	180	12 and 18	US-PGPUB; USPAT	ADJ	OFF	2007/10/26 21:50
L20	52	@AD<="20020806" AND 19	US-PGPUB; USPAT	ADJ	OFF	2007/10/26 21:50
L21	10	20 not 15	US-PGPUB; USPAT	ADJ	OFF	2007/10/26 21:51